

ABSTRACT

[0048] A method, system and apparatus for reliable multicarrier communication in the presence of timing phase error is disclosed. Phase noise due to a sampling-time phase mismatch between a transmitter device and a receiver device is measured in a signal. A Gaussian noise power level in the signal is determined, and a gain factor associated with the phase noise is calculated. The gain factor is applied to the Gaussian noise power level to calculate an equivalent noise power. In one aspect, the equivalent noise power is used to determine a signal-to-noise ratio. In another aspect, the signal is a multicarrier signal including a plurality of sub-carriers.